

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

TEUNIS WILLEM TUKKER

NL 000628

Serial No.

Group Art Unit

Filed: CONCURRENTLY

Ex.

Title: MEASUREMENT OF SURFACE DEFECTS

Commissioner for Patents  
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to calculation of the filing fee and examination, please amend the above-identified application as follows:

IN THE CLAIMS

Please amend the claims as follows:

4. (amended) A device as claimed in claim 1, characterized in that the superposition of the reference beam (6) and the reflected light (15) is formed in the optical beam path and that the superposition image thus obtained can be projected into an entrance window of a detector (16).

5. (amended) A device as claimed in claim 1, characterized in that the input signal formed by the superposition of the reference

beam (6) and the reflected light (15) can be electronically evaluated and that the frequency shift ( $\nu - \nu'$ ) of the reflected light (15) can be determined therefrom.

6. (amended) A device as claimed in claim 1, characterized in that the speed of rotation ( $\nu$ ) of a rotating defect (14) can be calculated from to the frequency shift ( $\nu - \nu'$ ) by way of the Doppler formula.

8. (amended) A device as claimed in claim 1, characterized in that the moving surface (8) is associated with a device for detecting its instantaneous orientation.

10. (amended) A device as claimed in claim 4, characterized in that the position of a defect (14) on the inspected surface relative to said scale can be determined from the signal detected by the detector (16; 17).

11. (amended) A device as claimed in claim 1, characterized in that the surface (8) to be inspected can move in a rotational as well as in a translational mode.

12. (amended) A device as claimed in claim 1, characterized in that the light beam (2) that is emitted by the light source (1) is

split into a plurality of measuring beams (5) and one or more reference beams (6), and that a plurality of surfaces (8) can be inspected at the same time.

REMARKS

The foregoing amendments to the claims were made solely to avoid filing the claims in the multiple dependent form so as to avoid the additional filing fee.

The claims were not amended in order to address issues of patentability and Applicants respectfully reserve all rights they may have under the Doctrine of Equivalents. Applicants furthermore reserve their right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

Respectfully submitted,

  
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## APPENDIX

4. (amended) A device as claimed in ~~one of the claims 1 to 3~~claim 1, characterized in that the superposition of the reference beam (6) and the reflected light (15) is formed in the optical beam path and that the superposition image thus obtained can be projected into an entrance window of a detector (16).

5. (amended) A device as claimed in ~~one of the claims 1 to 4~~claim 1, characterized in that the input signal formed by the superposition of the reference beam (6) and the reflected light (15) can be electronically evaluated and that the frequency shift ( $v-v'$ ) of the reflected light (15) can be determined therefrom.

6. (amended) A device as claimed in ~~one of the claims 1 to 5~~claim 1, characterized in that the speed of rotation ( $v$ ) of a rotating defect (14) can be calculated from the frequency shift ( $v-v'$ ) by way of the Doppler formula.

8. (amended) A device as claimed in ~~one of the claims 1 to 6~~claim 1, characterized in that the moving surface (8) is associated with a device for detecting its instantaneous orientation.

10. (amended) A device as claimed in ~~one of the claims 4 to~~  
~~8~~claim 4, characterized in that the position of a defect (14) on  
the inspected surface relative to said scale can be determined from  
the signal detected by the detector (16; 17).

11. (amended) A device as claimed in ~~one of the claims 1 to~~  
~~10~~claim 1, characterized in that the surface (8) to be inspected  
can move in a rotational as well as in a translational mode.

12. (amended) A device as claimed in ~~one of the claims 1 to~~  
~~11~~claim 1, characterized in that the light beam (2) that is emitted  
by the light source (1) is split into a plurality of measuring  
beams (5) and one or more reference beams (6), and that a plurality  
of surfaces (8) can be inspected at the same time.